Accelerated BSN Prerequisites: Sample Descriptions of Acceptable Prerequisite Courses

**Human Anatomy & Human Physiology:**
Many institutions of higher learning teach Anatomy & Physiology together, thus integrating the study of structure (Anatomy) and function (Physiology). Common practice is to teach these courses across two semesters. Below are two sample course descriptions, describing the primary areas of discussion that should be addressed in order to fulfill these two course requirements.

- **Anatomy & Physiology I**: An integrated study of the structure and function of the human body including atoms, molecules, cells, tissues, and organs. The skeletal, muscular, nervous, sensory and endocrine systems are studied in this first semester (remaining body systems studied in second semester, Anatomy & Physiology II).

- **Anatomy & Physiology II**: An integrated study of the structure and function of the human body including the reproductive, cardiovascular, lymphatic, respiratory, digestive, and urinary systems. Follows Anatomy & Physiology I.

**Introductory Statistics:**
Covers basic statistical content. Frequency distributions, measures of central tendency, measures of dispersion, probability, sampling distributions, problems with normal and t-distributions, confidence intervals, and beginning hypothesis testing.

**Microbiology:**
Concepts of Microbiology. Content covers study of non-pathogenic and pathogenic microorganisms. Characteristics of various microorganisms, control of microorganisms, host responses to microorganisms, cause, prevention and control of infectious diseases.

**Human Nutrition:**
Basic concepts of nutrition; healthy nutrition throughout the life cycle. Nutrition in health and illness; selected cultural variations, diet and physical activity (food conversion to energy); medical nutrition therapy, selected diseases, food safety, macro-nutrients and micro-nutrient chemistry, RDA requirements; age-related guidelines.

**Chemistry:**
Chemistry is concerned with the composition, structure, and properties of matter as well as the changes it undergoes during chemical reactions. At least one course in chemistry is required and must include some organic chemistry. Typically, organic chemistry content is covered in General Chemistry II or by taking a course specifically in Organic Chemistry.

- **General Chemistry I**: A study of the fundamental chemical laws and theories. Topics usually include atomic and molecular structure, chemical bonding, stoichiometry, chemical and physical properties, change of state, solution
chemistry and gas laws. This course is usually required before taking a second chemistry course that we ask which includes some Organic Chemistry.

- **General Chemistry II:** Includes course content in thermochemistry, thermodynamics, states of matter, solutions, chemical kinetics, chemical equilibrium, electrochemistry and an introduction to Organic Chemistry. Fundamental concepts of the carbon-containing compounds will be introduced. Topics include nomenclature, electron delocalization, resonance, stereochemistry, conformational analysis, synthesis, structure and reactivity relationships and spectroscopy.

- **Organic Chemistry:** A specific discipline within chemistry which involves the study of the structure, properties, composition, reactions and preparation of chemical compounds consisting primarily of carbon and hydrogen (organic matter). Life as we know it depends on both inorganic and organic compounds. The different shapes and chemical reactivities of organic molecules provide a variety of functions, like those of enzyme catalysts in biochemical reactions of live systems.

**Completing Prerequisite Coursework**
You do not have to complete prerequisite coursework before applying. If you are admitted, you must complete all of it by the time you matriculate into the program. You may have no more than one course in progress the spring semester prior to matriculation in May.

If you have any additional questions, please call the School of Nursing at (617) 726-0554.